

REMARKS

Reconsideration of the above-identified patent application in view of the present amendment and the following remarks is respectfully requested.

The Office Action of June 19, 2003 rejected claims 21 and 33 as indefinite under 35 U.S.C. §112, second paragraph. Claims 32 and 34 were rejected as anticipated under 35 U.S.C. §102(b) over Karbo et al., U.S. Patent No. 4,160,234. Claims 13-15, 17-20, 23, 24, 26, and 28-31 were rejected as obvious under 35 U.S.C. §103 over Mock et al., U.S. Patent No. 6,062,072, in view of Fiorletta, U.S. Patent No. 5,289,160. Claims 16, 22, and 27 were rejected as obvious over Mock et al. in view of Fiorletta and Karbo et al. It is respectfully acknowledged that claim 25 was indicated as allowable.

This amendment amends claims 13, 21, 23, and 24, cancels claims 25 and 27-34, and adds new claims 35-48. Claim 13 has been amended to add the subject matter of claim 25, which has been indicated as allowable. Claims 14-24 and 26 depend from claim 13 and are allowable for at least the same reasons as claim 13. Claim 21 has been amended to overcome the 35 U.S.C. §112, second paragraph rejection. Therefore, allowance of claims 13-24 and 26 is respectfully requested.

New claim 35 recites a measuring system for measuring at least one parameter that is indicative of a state of a tire mounted on a wheel of a vehicle. The system comprises a detector having a parameter sensor and a detector antenna tuned to a defined frequency. The detector is mounted to a rim of the wheel and the detector antenna extends circumferentially around the wheel rim and contacts the wheel rim. The parameter sensor comprises a transponder for transmitting signals indicative of the sensed parameter via the detector antenna. A central data processing unit is mounted on the vehicle for receiving the transmitted signals and for, in response to receiving the transmitted signals, providing indications of the sensed parameter. A fixed antenna is coupled by a wire link to the central data processing unit. The fixed antenna is arranged near the wheel. Power for operating the detector is transferred from the fixed antenna to the parameter sensor through the detector antenna. The parameter sensor has a capacitor for storing power received from the fixed antenna until use. The wheel rim is made of one of a non-conductive material and a weakly conductive material.

It is respectfully suggested that claim 35 patentably defines over Mock et al., Fiorletta, and Karbo et al., whether taken singularly or in combination. Claim 35

recites that wheel rim is made of one of a non-conductive material and a weakly conductive material. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature of claim 35. In rejecting original claims 23 and 24, which included a similar limitation, the Office Action stated that it would have been obvious for one of ordinary skill in the art at the time of the invention to provide such a wheel rim so as to isolate any electrical interference of the wheel rim from the antenna. However, the Office Action fails to cite a reference for this teaching. Thus, this statement must be based upon personal knowledge of the Examiner. Thirty-seven C.F.R. §1.04(d)(2) states that:

When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

Applicant, at this time, requests an affidavit of the Examiner to support the Examiner's statement pursuant to 37 C.F.R. §1.104(d)(2).

The use of a non-conductive or weakly conductive material for the wheel rim is beneficial to the measuring system of claim 35 in which power is transferred to the parameter sensor through the detector antenna. In such a

system, a conductive wheel rim will reduce the efficiency of power transfer to the parameter sensor. None of Mock et al., Fiorletta, or Karbo et al. teaches or suggests a system in which power is transferred to a parameter sensor of a detector mounted to a wheel rim made of non-conductive or weakly conductive material. Since Mock et al., Fiorletta, or Karbo et al. fail to teach or suggest this feature of claim 35, allowance of claim 35 is respectfully requested.

Claims 36-40 depend from claim 35 and are allowable for at least the same reasons as claim 35. Additionally, claims 36-40 are allowable for the specific limitations of each claim.

Specifically, claim 37 recites that the parameter sensor comprises a memory in which identification information of the wheel is stored. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest a memory in which identification information of the wheel is stored. Mock et al. teaches a transmitter with identification information that appears to be associated with the tire and appears to move with the tire from wheel to wheel when the location of the tire is changed. Since Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature of claim 37, allowance of claim 37 is respectfully requested.

Claim 39 recites that the parameter sensor and the detector antenna are integrated into the wheel rim. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest a parameter sensor and a detector antenna being integrated into the wheel rim. Therefore, allowance of claim 39 is respectfully requested.

Claim 40 recites that the wheel rim is made of plastic. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature of claim 40. Therefore, allowance of claim 39 is respectfully requested.

New claim 41 recites a measuring system for measuring pressure within a tire mounted on a wheel of a vehicle. The system comprises an annular support mounted on the wheel within the tire for enabling operation of the wheel when the tire is flat. A detector has a parameter sensor and a detector antenna tuned to a defined frequency. The detector is secured to the annular support in a location spaced away from the wheel. The parameter sensor senses air pressure within the tire and a transponder transmits pressure signals having an air pressure value portion that indicates the sensed air pressure within the tire. A central data processing unit is mounted on the vehicle and is coupled to a fixed antenna for receiving the transmitted pressure signals and for providing indications of the sensed air pressure.

It is respectfully suggested that claim 41 patentably defines over Mock et al., Fiorletta, and Karbo et al., taken singularly or in combination. Claim 41 recites a detector that is mounted on an annular support for enabling operation of the wheel when the tire is flat. The detector has a parameter sensor that senses air pressure within the tire and a transponder for transmitting pressure signals having an air pressure value portion that indicates the sensed air pressure within the tire. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest a detector mounted on an annular support for enabling operation of the wheel when the tire is flat that transmits pressure signals having an air pressure value portion that indicates sensed air pressure within the tire. In Karbo et al., the transmitted signals only indicate that the tire is deflated to such an extent that a load is being applied to the surface 24 of the run flat insert 26. Karbo et al. fails to teach or suggest transmitting pressure signals having air pressure value portions that indicated the sensed air pressure. Mock et al. and Fiorletta fail to teach or suggest a support for enabling the wheel to operate when the tire is flat. Since Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature of claim 41, allowance of claim 41 is respectfully requested.

Claims 42-48 depend from claim 41 and are allowable for at least the same reasons as claim 41. Additionally, claims 42-48 are allowable for the specific limitations of each claim.

Specifically, claim 42 recites that the parameter sensor is configured to sense air pressure within the tire and transmit pressure signals when the tire is inflated away from the annular support for enabling operation when the tire is flat. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature. Specifically, Karbo et al. only transmits signals when the tire is deflated against surface 24 of the run flat insert 26. Therefore, allowance of claim 42 is respectfully requested.

Claim 44 recites that the annular support includes a recess located in a side surface of the annular support. The detector is secured in the recess of the annular support. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest this feature of claim 44. Therefore, allowance of claim 44 is respectfully requested.

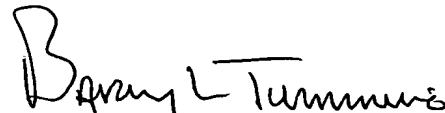
Claim 45 recites that the fixed antenna is associated with the wheel and is arranged on the vehicle near the wheel. Claim 45 also recites that power for operating the detector is transferred from the fixed antenna to the parameter sensor through the detector antenna and that the

parameter sensor has a capacitor for storing power received from the fixed antenna until use. Mock et al., Fiorletta, and Karbo et al. fail to teach or suggest a detector mounted on an annular support for enabling operation of a wheel when the tire is flat that receives power transferred from a fixed antenna through the detector antenna. In Karbo et al., no power is transferred to the transmitting assembly 30 from the vehicle antenna 18. Therefore, allowance of claim 45 is respectfully requested.

In view of the foregoing, it is respectfully submitted that the above-identified patent application is in condition for allowance, and allowance of the above-identified patent application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,



Barry L. Tummino
Reg. No. 29,709

TAROLLI, SUNDHEIM, COVELL,
& TUMMINO L.L.P.
526 Superior Avenue, Suite 1111
Cleveland, Ohio 44114-1400
Phone: (216) 621-2234
Fax: (216) 621-4072
Customer No.: 26,294